

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/001144

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: C07D 215/38, C07D 215/48, C07D 403/04, A61K 31/47, A61K 31/4709,  
A61K 31/497, A61P 9/10, A61P 11/00 A61P 29/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: C07D, A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, STN-CAPLUS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| X         | US 5804588 A (DYKE ET AL), 8 Sept 1998<br>(08.09.1998), formula I<br>--  | 1-21                  |
| X         | S D. Sharma, Usha Mehra, S B Pandhi, JPS Khurana,<br>Studies of Fused Beta-Lactams: Synthesis &<br>Antibacterial Activity of Some<br>Pyridyl/Quinolyl-2-azetidiones,<br>Indian Journal of Chemistry, Vol. 27B, May 1998,<br>pages 494-497, compound VI<br>-- | 1-21                  |
| A         | Tiziana Modena, Ida Genta, Marco Mazza,<br>"Plant Growth Regulating Activities of<br>2-[2-(Arylamino)-2-oxoethyl]benzoic acids",<br>IL FARMACO, Vol. 48, No. 4, 1993, pages 567-572,<br>tables I-III<br>--   | 1-21                  |

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance  
 "E" earlier application or patent but published on or after the international filing date  
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other means  
 "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
 "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search

16 November 2004

Date of mailing of the international search report

17-11-2004

Name and mailing address of the ISA/  
 Swedish Patent Office  
 Box 5055, S-102 42 STOCKHOLM  
 Facsimile No. +46 8 666 02 86

Authorized officer

FERNANDO FARIETA/BS  
 Telephone No. +46 8 782 25 00

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2004/001144

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                       | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | EP 0501656 A2 (SANKYO COMPANY LIMITED),<br>2 Sept 1992 (02.09.1992), formula I<br><br>--                 | 1-21                  |
| A         | EP 0940391 A2 (SMITHKLINE BEECHAM FARMACEUTICI<br>S.P.A.), 8 Sept 1999 (08.09.1999), formula I<br><br>-- | 1-21                  |
| A         | WO 9719926 A1 (SMITHKLINE BEECHAM S.P.A.),<br>5 June 1997 (05.06.1997), formula I<br><br>--<br>-----     | 1-21                  |

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2004/001144

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: **20-21**  
because they relate to subject matter not required to be searched by this Authority, namely:  
**see extra sheet**
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/SE 2004/001144

## Box II.1

Claims 20-21 relate to methods of treatment of the human or animal body by surgery or by therapy/diagnostic methods practised on the human or animal body/Rule 39.1.(iv). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds/compositions.

BEST AVAILABLE COPY

## INTERNATIONAL SEARCH REPORT

Information on patent family members

30/10/2004

International application No.

PCT/SE 2004/001144

US 5804588 A 08/09/1998

|    |              |            |
|----|--------------|------------|
| AU | 722472 B     | 03/08/2000 |
| AU | 722662 B     | 10/08/2000 |
| AU | 2905897 A    | 09/12/1997 |
| AU | 2905997 A    | 09/12/1997 |
| BR | 9709015 A    | 03/08/1999 |
| BR | 9709105 A    | 03/08/1999 |
| CA | 2252501 A    | 27/11/1997 |
| CA | 2252531 A    | 27/11/1997 |
| CN | 1219131 A    | 09/06/1999 |
| CN | 1219168 A    | 09/06/1999 |
| CZ | 9803651 A    | 17/03/1999 |
| EP | 0912519 A    | 06/05/1999 |
| EP | 0952832 A    | 03/11/1999 |
| GB | 9610506 D    | 00/00/0000 |
| IL | 126557 A     | 12/09/2002 |
| JP | 2000510865 T | 22/08/2000 |
| JP | 2000510866 T | 22/08/2000 |
| NO | 312099 B     | 18/03/2002 |
| NO | 985376 A     | 19/11/1998 |
| NZ | 332341 A     | 26/05/2000 |
| PL | 329922 A     | 26/04/1999 |
| RU | 2170730 C    | 20/07/2001 |
| SK | 160598 A     | 10/12/1999 |
| SK | 283162 B     | 04/03/2003 |
| TR | 9802385 T    | 00/00/0000 |
| US | 5834485 A    | 10/11/1998 |
| WO | 9744036 A    | 27/11/1997 |
| WO | 9744322 A    | 27/11/1997 |
| ZA | 9704373 A    | 20/05/1998 |
| ZA | 9704374 A    | 20/05/1998 |
| GB | 9623234 D    | 00/00/0000 |
| GB | 9626883 D    | 00/00/0000 |
| GB | 9708072 D    | 00/00/0000 |

EP 0501656 A2 02/09/1992

|    |              |            |
|----|--------------|------------|
| SE | 0501656 T3   |            |
| AT | 148098 T     | 15/02/1997 |
| CA | 2061557 A    | 22/08/1992 |
| CN | 1036064 B    | 08/10/1997 |
| CN | 1064273 A    | 09/09/1992 |
| CZ | 9200500 A    | 17/03/1993 |
| DE | 69216873 D,T | 21/08/1997 |
| DK | 501656 T     | 21/07/1997 |
| ES | 2099206 T    | 16/05/1997 |
| GR | 3022594 T    | 31/05/1997 |
| HK | 1005722 A    | 00/00/0000 |
| HU | 64012 A      | 29/11/1993 |
| HU | 9200579 D    | 00/00/0000 |
| IE | 920538 A     | 26/08/1992 |
| JP | 2561809 Y    | 04/02/1998 |
| JP | 4117860 U    | 21/10/1992 |
| JP | 5112515 A    | 07/05/1993 |
| RU | 2042663 C    | 27/08/1995 |
| US | 5614521 A    | 25/03/1997 |
| US | 5643925 A    | 01/07/1997 |

BEST AVAILABLE COPY

## INTERNATIONAL SEARCH REPORT

Information on patent family members

30/10/2004

International application No.

PCT/SE 2004/001144

|    |         |    |            |    |            |     |            |
|----|---------|----|------------|----|------------|-----|------------|
| EP | 0940391 | A2 | 08/09/1999 | SI | 804419     | T   | 00/00/0000 |
|    |         |    |            | AP | 578        | A   | 26/03/1997 |
|    |         |    |            | AP | 9500745    | D   | 00/00/0000 |
|    |         |    |            | AT | 246677     | T   | 15/08/2003 |
|    |         |    |            | AT | 273959     | T   | 15/09/2004 |
|    |         |    |            | AU | 699319     | B   | 03/12/1998 |
|    |         |    |            | AU | 1216299    | A   | 25/03/1999 |
|    |         |    |            | AU | 2616495    | A   | 21/12/1995 |
|    |         |    |            | BG | 64004      | B   | 30/09/2003 |
|    |         |    |            | BG | 101008     | A   | 29/08/1997 |
|    |         |    |            | BG | 103181     | A   | 30/09/1999 |
|    |         |    |            | BR | 9507788    | A   | 23/09/1997 |
|    |         |    |            | CA | 2191352    | A,C | 07/12/1995 |
|    |         |    |            | CA | 2257662    | A   | 07/12/1995 |
|    |         |    |            | CN | 1092642    | B   | 16/10/2002 |
|    |         |    |            | CN | 1156451    | A   | 06/08/1997 |
|    |         |    |            | CN | 1276211    | A   | 13/12/2000 |
|    |         |    |            | CN | 1428145    | A   | 09/07/2003 |
|    |         |    |            | CZ | 291476     | B   | 12/03/2003 |
|    |         |    |            | CZ | 9603470    | A   | 15/10/1997 |
|    |         |    |            | DE | 69531458   | D,T | 05/08/2004 |
|    |         |    |            | DE | 69533408   | D   | 00/00/0000 |
|    |         |    |            | DK | 804419     | T   | 24/11/2003 |
|    |         |    |            | EP | 0804419    | A,B | 05/11/1997 |
|    |         |    |            | SE | 0804419    | T3  |            |
|    |         |    |            | ES | 2204952    | T   | 01/05/2004 |
|    |         |    |            | FI | 964712     | A   | 23/01/1997 |
|    |         |    |            | FI | 990268     | A   | 10/02/1999 |
|    |         |    |            | HK | 1003884    | A   | 00/00/0000 |
|    |         |    |            | HU | 76286      | A   | 28/07/1997 |
|    |         |    |            | HU | 9603262    | D   | 00/00/0000 |
|    |         |    |            | HU | 9900343    | D   | 00/00/0000 |
|    |         |    |            | IL | 113844     | D   | 00/00/0000 |
|    |         |    |            | IL | 126806     | D   | 00/00/0000 |
|    |         |    |            | IL | 128220     | D   | 00/00/0000 |
|    |         |    |            | IL | 139301     | D   | 00/00/0000 |
|    |         |    |            | IT | MI941099   | A   | 27/11/1995 |
|    |         |    |            | JP | 10500697   | T   | 20/01/1998 |
|    |         |    |            | JP | 2000026314 | A   | 25/01/2000 |
|    |         |    |            | JP | 2002179594 | A   | 26/06/2002 |
|    |         |    |            | MA | 23560      | A   | 00/00/0000 |
|    |         |    |            | NO | 307783     | B   | 29/05/2000 |
|    |         |    |            | NO | 965036     | A   | 24/01/1997 |
|    |         |    |            | NO | 991813     | A   | 24/01/1997 |
|    |         |    |            | NZ | 287442     | A   | 27/05/1998 |
|    |         |    |            | NZ | 329979     | A   | 28/07/2000 |
|    |         |    |            | OA | 10592      | A   | 27/08/2002 |
|    |         |    |            | PL | 186075     | B   | 31/10/2003 |
|    |         |    |            | PL | 186665     | B   | 27/02/2004 |
|    |         |    |            | PL | 317381     | A   | 01/04/1997 |
|    |         |    |            | PT | 804419     | T   | 31/12/2003 |
|    |         |    |            | RO | 114445     | A,B | 30/04/1999 |
|    |         |    |            | RU | 2155754    | C   | 10/09/2000 |
|    |         |    |            | SK | 4799       | A   | 11/06/1999 |
|    |         |    |            | SK | 151496     | A   | 09/07/1997 |

BEST AVAILABLE COPY

## INTERNATIONAL SEARCH REPORT

Information on patent family members

30/10/2004

International application No.

PCT/SE 2004/001144

|       |         |    |            |    |             |       |            |
|-------|---------|----|------------|----|-------------|-------|------------|
| EP    | 0940391 | A2 | 08/09/1999 | SK | 282721      | B     | 06/11/2002 |
|       |         |    |            | SK | 282722      | B     | 06/11/2002 |
|       |         |    |            | TW | 427977      | B     | 00/00/0000 |
|       |         |    |            | TW | 533199      | B     | 00/00/0000 |
|       |         |    |            | US | 5811553     | A     | 22/09/1998 |
|       |         |    |            | US | 6608083     | B     | 19/08/2003 |
|       |         |    |            | US | 20030236281 | A     | 25/12/2003 |
|       |         |    |            | WO | 9532948     | A     | 07/12/1995 |
|       |         |    |            | ZA | 9504269     | A     | 14/05/1996 |
|       |         |    |            | IT | 237026      | Y     | 31/08/2000 |
|       |         |    |            | IT | 1293558     | B     | 01/03/1999 |
|       |         |    |            | IT | MI950494    | A,U,V | 16/09/1996 |
| ----- |         |    |            |    |             |       |            |
| WO    | 9719926 | A1 | 05/06/1997 | AP | 9801238     | D     | 00/00/0000 |
|       |         |    |            | AU | 1031897     | A     | 19/06/1997 |
|       |         |    |            | BG | 102557      | A     | 31/03/1999 |
|       |         |    |            | BR | 9611757     | A     | 06/04/1999 |
|       |         |    |            | CA | 2238328     | A     | 05/06/1997 |
|       |         |    |            | CN | 1207729     | A     | 10/02/1999 |
|       |         |    |            | CZ | 9801580     | A     | 14/10/1998 |
|       |         |    |            | EA | 1771        | B     | 00/00/0000 |
|       |         |    |            | EP | 1019377     | A     | 19/07/2000 |
|       |         |    |            | HU | 9901016     | A     | 28/03/2000 |
|       |         |    |            | IL | 124418      | D     | 00/00/0000 |
|       |         |    |            | IT | 1276171     | B     | 27/10/1997 |
|       |         |    |            | IT | MI952462    | A     | 26/05/1997 |
|       |         |    |            | JP | 2000513325  | T     | 10/10/2000 |
|       |         |    |            | MA | 24011       | A     | 00/00/0000 |
|       |         |    |            | NO | 311213      | B     | 29/10/2001 |
|       |         |    |            | NO | 982333      | A     | 22/07/1998 |
|       |         |    |            | OA | 11011       | A     | 06/03/2003 |
|       |         |    |            | PL | 326928      | A     | 09/11/1998 |
|       |         |    |            | SK | 66898       | A     | 02/12/1998 |
|       |         |    |            | TR | 9800883     | T     | 00/00/0000 |
|       |         |    |            | TW | 409123      | B     | 00/00/0000 |
|       |         |    |            | US | 20020068827 | A     | 06/06/2002 |
|       |         |    |            | ZA | 9609811     | A     | 22/05/1998 |
|       |         |    |            | ID | 16747       | A     | 00/00/0000 |
|       |         |    |            | IT | 1307330     | B     | 30/10/2001 |
|       |         |    |            | IT | MI961688    | A     | 02/02/1998 |
|       |         |    |            | NZ | 323388      | A     | 28/01/2000 |
| ----- |         |    |            |    |             |       |            |

BEST AVAILABLE COPY